

STATE OF MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY LANSING



Flue Gas Desulfurization Sludge Exemption

In accordance with the provisions of Section 11507 of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), and the rules promulgated under Part 115 (Part 115 Rules), specifically R 299.4119, flue gas desulfurization sludge (Material) generated by scrubbing stack emissions from any coal burning power plant (Plant) is granted a site/source separated exemption by the authorized representative of the Director of the Michigan Department of Environmental Quality (MDEQ).

This approval supersedes the exemption issued on April 4, 2013.

This exemption is subject to the following conditions:

- 1. This approval is for Material that meets the criteria contained in Appendix A. The owner/operator of the Plant shall test the material on a yearly basis to ensure the contaminants in the Material meet the criteria contained in Appendix A and make the results available to the MDEQ, upon request.
- 2. The owner/operator of the Plant shall notify the MDEQ, prior to allowing for the reuse of the Material, that they will comply with the conditions in this approval.
- 3. The owner/operator of the Plant shall notify the MDEQ, prior to sending Material off-site to any site intended to receive over 1,000 tons of Material.
- 4. The owner/operator of the Plant and any distributors shall be responsible for ensuring that the end users are aware of the obligations associated with this approval.
- 5. The Material shall be used in compliance with one of the following:
 - a. It shall be applied only to agricultural or silvicultural lands that need fertilization or as a soil amendment as demonstrated by laboratory soil tests.
 - b. It shall be used to produce new wallboard.
- 6. Application of the Material to agricultural or silvicultural lands shall not exceed the agronomic rate for the crop to be grown on the site subsequent to the application of Material to the site. The agronomic rate is defined as that rate that provides the nitrogen and other nutrient needs of the crop or the rate that is needed to modify the physical qualities of the soil to enhance crop productivity but does not overload the soil with nutrients or other constituents that may eventually leach to groundwater, limit crop growth, or adversely impact soil quality.
- 7. These fields must currently be in use or will be used in the next growing season for crop production or harvest in the case of agricultural land. Fall applications of Material shall be restricted to fall planted crops, such as winter wheat and forage stands, or for silvicultural use and as a soil amendment to improve the quality of the soil.

- 8. The Material shall not be applied in a manner that adversely restricts soil permeability or causes ponding, pooling, or runoff in the area.
- 9. The Material that is surface applied to agricultural soil shall be incorporated into the soil as soon as feasible after application to land or it may be surface applied but application is restricted when conditions of high wind exist, when fields are ponded with water, or when rainfall of more than ½ inch is anticipated immediately after the Material is applied to the land.
- 10. The Material shall not be applied to an application site unless the water table is at least 30 inches below the surface of the soil at the time of application.
- 11. The Material shall be applied at a distance greater than 150 feet from wells, surface waters, and residences.
- 12. The application of the Material shall not cause erosion or sedimentation to occur in violation of Part 91, Soil Erosion and Sedimentation Control, of the NREPA, and the rules promulgated under Part 91.
- 13. The Material or constituents contained in the Material shall not come into direct contact with surface water, groundwater, or wetland areas as defined by the NREPA and the administrative rules promulgated thereunder, unless approved or permitted by the MDEQ.
- 14. The Material shall be licensed with the Michigan Department of Agriculture, pursuant to Part 85, Fertilizers, of the NREPA, if plant nutrient claims are being made.
- 15. Processing, storage, or use of the Material shall be managed in such a way to prevent nuisance conditions and the release of fugitive dust or visible emissions in violation of Part 55, Air Pollution Control, of the NREPA, or the rules promulgated under Part 55.
- 16. Processing and storage of the Material shall be done either in a building or an area meeting the waste pile containment requirements contained in R 299.4130 of the Part 115 Rules.
- 17. Vehicles used to transport the Material shall comply with the Michigan Vehicle Code, 1949 PA 300, as amended (MVC), and the rules promulgated under the MVC. The Material shall be covered to prevent loss to the environment during transport and delivery to an application site.
- 18. The Material may be disposed of in a Type II municipal landfill or a Type III industrial/construction and demolition landfill licensed pursuant to Part 115, provided the disposal is consistent with the landfill's waste acceptance policies and the Material is solidified sufficiently to pass the paint filter test.
- 19. Prior to application, the Material shall not be mixed with other wastes that are not inert as defined by Part 115 or the Part 115 Rules, unless appropriate approvals or permits as required by state and/or federal law are obtained.

- 20. The Plant owner/operator shall ensure that the concentration of contaminants in the soil, after land application, shall not cause the creation of a "facility" as defined by Part 201, Environmental Remediation, of the NREPA. Activity inconsistent with this approval does not constitute a permitted release as defined in Part 201.
- 21. By October 31 of each year, the Plant owner/operator shall submit a report to the MDEQ that details the volume of Material generated during the previous year, which runs from October 1 to September 30, which includes the volume of Material generated and the volume of Material land applied in Michigan. The report should be submitted to:

Duane Roskoskey Solid Waste Section Office of Waste Management and Radiological Protection Michigan Department of Environmental Quality P.O. Box 30241 Lansing, Michigan 48909-7741

- 22. This approval shall immediately become void for any of the following reasons:
 - A. The Plant owner/operator, any of its distributors, or end users does not comply with the conditions of this approval.
 - B. Additional information demonstrates that the Material is not appropriate for agricultural or silvicultural use.
 - C. Additional information demonstrates that the Material is causing environmental contamination.
 - D. New state or federal regulations are promulgated that would cause this approval to be invalid.

Violation of the conditions of this approval is subject to the enforcement provisions of Part 55, Part 85, Part 91, Part 115, and Part 201 or other applicable state and federal laws/statutes.

> STATE OF MICHIGAN Department of Environmental Quality

By:

Steven R. Sliver, Chief

Solid Waste Section

Office of Waste Management and Radiological Protection

6-27-13 Dated:

Maximum Contaminant Levels

CONTAMINANT	ALLOWABLE LEVEL mg/kg or PPM
Arsenic	5.8
Barium	1,300
Cadmium	6.0
Copper	5,800
Lead	400
Mercury	1.7
Selenium	4.0
Zinc	2,400